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09/677,134	09/29/2000	Stanton J. Taylor	10022/039	1622

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EXAMINER

CORRIELUS, JEAN M

ART UNIT PAPER NUMBER

2162

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/677,134

Applicant(s)

TAYLOR, STANTON J.

Examiner

Jean M. Corrielus

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This office action is in response to the amendment filed on September 19, 2005, in which claims 1-41 are presented for further examination.

#### *Information Disclosure Statement*

2. The information disclosure statement (IDS) filed on September 19, 2005 and March 03, 2005 complies with the provisions of M.P.E.P 609. It has been placed in the application file. The information referred to therein has been considered as to the merits.

#### *Drawings*

3. Applicants are required to furnish the formal drawings in response to this office action if the formal drawings have not been submitted. No new matter may be introduced in the required drawings. Failure to timely submit a drawing will result in ABANDONMENT of the application.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 6-10, 14, 15, 18, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orfali et al., "Client/server computing" and Tilley et al., Net-Centric computer.

As to claim 1, Orfali discloses the claimed "a plurality of database servers" **SQL database servers (see page 4, col.2, lines 1-3); "a plurality of data stores each in communication with one of the database servers, wherein the database servers are operable to access the data stores" stored data in communication with the database servers (page 4, col.2, paragraph 2); "client communicating with the database servers' client/ server computing system, wherein the clients are connected to the servers via a communication link (page 4, col.1, last paragraph).**

However, Orfali does not explicitly disclose the use of having each of the data stores includes a predetermined portion of the data used within the net-centric computing system and a web-server in communication with the client to act as the primary interface between and the client and the database servers. On the other hand, Tilley discloses a Net-centric computing system that attracts significant interest from network and telecommunications as a vehicle for innovation to achieve enterprise-wide integration by having each of the data stores includes a predetermined portion of the data used within the net-centric computing system (**Section 2 and section 4**) and a web server in communication with the client as an interface between the client and the server (**Section 2, section 4 and section 5**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the client/server system as disclosed by Orfali would incorporate the use of Net-centric computing system as disclosed by Tilley. One having ordinary skill in the art would have found it obvious to use such Net-centric computing system of Tilley into the client/server system of Orfali for the purpose of providing localized data management in a real-time distributed network, without affecting the existing distributed application's functionality and performance.

As to claim 2, Tilley discloses the claimed "wherein the client communicates with the database servers using a web browser application" **Section 2, section 4 and section 5).**

As to claim 6, Tilley discloses the claimed "wherein the predetermined portion of the data representing all of the data in the net-centric computing system resides on at least one central data store" (see **Section 2, section 4 and section 5).**

As to claim 7, Tilley discloses the claimed "wherein a predetermined portion of the data is replicated to form the predetermined portion of the data residing on at least one local data store" (see **Section 2, section 4 and section 5).**

As to claim 8, Tilley discloses the claimed "wherein the predetermined portion of the data residing on the at least one central data store is segmented" (see **Section 2, section 4 and sections 5 and 6).**

As to claim 9, Tilley discloses the claimed "wherein the predetermined portion of the data residing on the at least one local data store is segmented" (see **Section 2, section 4, sections 5 and 6).**

As to claim 10, Orfali discloses the claimed "a plurality of database servers" **SQL database servers (see page 4, col.2, lines 1-3); "a plurality of data stores each in communication with one of the database servers, wherein the database servers are operable to access the data stores" stored**

**data in communication with the database servers (page 4, col.2, paragraph 2); “client communicating with the database servers’ client/ server computing system, wherein the clients are connected to the servers via a communication link (page 4, col.1, last paragraph).**

However, Orfali does not explicitly disclose the use of having each of the databases are representative of a segment of the data in the net-centric computing system and a web-server in communication with the client to act as the primary interface between and the client and the database servers. On the other hand, Tilley discloses a Net-centric computing system that attracts significant interest from network and telecommunications as a vehicle for innovation to achieve enterprise-wide integration by having each of the data stores includes a predetermined portion of the data used within the net-centric computing system (**Section 2 and section 4**) and a web server in communication with the client as an interface between the client and the server (**Section 2, section 4 and section 5**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the client/server system as disclosed by Orfali would incorporate the use of Net-centric computing system as disclosed by Tilley. One having ordinary skill in the art would have found it obvious to use such Net-centric computing system of Tilley into the client/server system of Orfali for the purpose of providing localized data management in a real-time distributed network, without affecting the existing distributed application’s functionality and performance.

As to claim 14, Orfali discloses the claimed "a central database server" **SQL database servers** (see page 4, col.2, lines 1-3); "a central and local data stores each in communication with one of the central database server" **stored data in communication with the database servers** (page 4, col.2, paragraph 2); "a network for communication with the local database server and central database server" **client/ server computing system, wherein the clients are connected to the servers via a communication link** (page 4, col.1, last paragraph). However, Orfali does not explicitly disclose the use of having each of the databases are representative of a segment of the data in the net-centric computing system and a web-server in communication with the client to act as the primary interface between and the client and the database servers. On the other hand, Tilley discloses a Net-centric computing system that attracts significant interest from network and telecommunications as a vehicle for innovation to achieve enterprise-wide integration by having each of the data stores includes a predetermined portion of the data used within the net-centric computing system (**Section 2 and section 4**) and a web server in communication with the client as an interface between the client and the server (**Section 2, section 4 and section 5**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the client/server system as disclosed by Orfali would incorporate the use of Net-centric computing system as disclosed by Tilley. One having ordinary skill in the art would have found it obvious to use such Net-centric computing system of Tilley into the client/server system of Orfali for the purpose of providing localized data management in a real-time distributed network, without affecting the existing distributed application's functionality and performance.

As to claim 15, Tilley discloses the claimed "wherein the communication between the central data base server and the local database server is via the network" (see **Section 2, section 4, sections 5 and 6**).

As to claim 18, Orfali discloses the claimed "communicating with the data stores with a plurality of database servers and interfacing the database servers with the data entity" **SQL database servers (see page 4, col.2, lines 1-3, col.2, paragraph 2; page 4, col.1, last paragraph)**.

However, Orfali does not explicitly disclose the use of identifying the data needs of a plurality of data entity groups within the net-centric computing system and identifying predetermined portions of the data to be used by the data entity groups. On the other hand, Tilley discloses a Net-centric computing system that attracts significant interest from network and telecommunications as a vehicle for innovation to achieve enterprise-wide integration by identifying the data needs of a plurality of data entity groups within the net-centric computing system and identifying predetermined portions of the data to be used by the data entity groups (**Section 2 and section 4 and section 5**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the client/server system as disclosed by Orfali would incorporate the use of Net-centric computing system as disclosed by Tilley. One having ordinary skill in the art would have found it obvious to use such Net-centric computing system of Tilley into the client/server system of Orfali for the purpose of providing localized data management in a real-time distributed network, without affecting the existing distributed application's functionality and performance.

As to claim 22, Tilley discloses the claimed "the act of replicating the data to create the predetermined portions of the data" (**Section 2 and section 4 and section 5**).

As to claim 23, Orfali discloses the claimed "communicating with the data stores with a plurality of database servers and interfacing the database servers with a plurality of clients and accessing the database servers depending on data requests" **SQL database servers (see page 4, col.2, lines 1-3, col.2, paragraph 2; page 4, col.1, last paragraph)**. However, Orfali does not explicitly disclose the use of determining a plurality of segmentation parameters; performing segmentation of the data based on the segmentation parameters and storing the segmentation data in a plurality of data stores. On the other hand, Tilley discloses a Net-centric computing system that attracts significant interest from network and telecommunications as a vehicle for innovation to achieve enterprise-wide integration by determining a plurality of segmentation parameters; performing segmentation of the data based on the segmentation parameters and storing the segmentation data in a plurality of data stores. (**Section 2 and section 4 and section 5**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the client/server system as disclosed by Orfali would incorporate the use of Net-centric computing system as disclosed by Tilley. One having ordinary skill in the art would have found it obvious to use such Net-centric computing system of Tilley into the client/server system of Orfali for the purpose of providing localized data management in a real-time distributed network, without affecting the existing distributed application's functionality and performance.

6. Claims 28, 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breitbart et al., US Patent no. 5,999,931 (hereinafter Breitbart”) and Tilley et al., Net-Centric computer.

As to claim 28, Breitbart discloses the claimed "storing data in a central database" storing a plurality of data items or records in the centralized database (col.1, lines 16-22); "replicating a predetermined portion of the data to create replica data" managing and generating a replica data (col.3, lines 16-20; col.7, lines 65-67); "transferring the replica data to a corresponding local database using a network" (col.2, lines 20-31); and "updating the data in the central database and the local database" (col.6, lines 48-60; col.9, lines 50-65). However, Breitbart **does not explicitly** disclose a net-centric computing system and accessing the data and the replica data using the network and a web-server. Tilley discloses a Net-centric computing system that attracts significant interest from network and telecommunications as a vehicle for innovation to achieve enterprise-wide integration by accessing the data and the replica data using the network and a web-server (**Section 2 and section 4 and section 5**). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the client/server system as disclosed by Orfali would incorporate the use of Net-centric computing system as disclosed by Tilley. One having ordinary skill in the art would have found it obvious to use such Net-centric computing system of Tilley into the client/server system of Orfali for the purpose of providing localized data management in a real-time distributed network, without affecting the existing distributed application's functionality and performance.

As to claims 37-41, Breitbart performs an update of the replica data in the central database (col.6, lines 48-60, col.9, lines 50-65).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3-5, 11-13, 19-21 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orfali et al., "Client/server computing" and Tilley et al., Net-Centric computer and further in view of Chaum et al., (hereinafter "Chaum" US Patent no. 5,956,400.

As to claims 3-5, 11-13, 19-21 and 24-27, Orfali and Tilley substantially disclose the invention as claimed. However, neither Orfali nor Tilley discloses the claimed "a horizontally segmented, a vertically segmented and both horizontally and vertically segmented to form the predetermined portion of the data". On the other hand, Chaum discloses a horizontally segmented, a vertically segmented and both horizontally and vertically segmented to form the predetermined portion of the data" (col.1, lines 15-26; col.8, lines 6-24; col.9, lines 45-60; col.10, lines 31-35). It would have been obvious to one having ordinary skill in the art the time the invention was made to combine the teachings of the cited references, by incorporating the use of horizontally segmented, a vertically segmented and both horizontally and vertically segmented to form the predetermined portion of the data in Net-centric computing of Tilley in order to increase security, privacy and

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compliance with privacy legislation, thereby enforcing data access control policies by allowing an arbitrary number of parties to share data access control.

As to claim 25, Chaum discloses the claimed "wherein the segmentation parameters comprise a plurality of segmentation keys and the origin of the majority of the data requests" (col.1, lines 15-26; col.8, lines 6-24; col.9, lines 45-60; col.10, lines 31-35).

As to claim 26, Chaum discloses the claimed "wherein the segmentation performed is vertical segmentation" (col.1, lines 15-26; col.8, lines 6-24; col.9, lines 45-60; col.10, lines 31-35).

As to claim 27, Chaum discloses the claimed "wherein the segmentation parameters comprise determination of a plurality of related subject matter areas" (col.1, lines 15-26; col.8, lines 6-24; col.9, lines 45-60; col.10, lines 31-35).

9. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orfali et al., "Client/server computing" and Tilley et al., Net-Centric computer further in view of Chaum et al., (hereinafter "Chaum" US Patent no. 5,956,400 and Strickler et al. (hereinafter "Strickler") US Patent no. 6,122,630.

As to claims 16-17, Chaum does not explicitly disclose a unidirectional and bidirectional replication. On the other hand, Strickler discloses a unidirectional and bidirectional replication (col.1, lines 6-18, 27-40, 53-62, col.3, lines 19-21, lines 29-31; col.5, lines 32-35; col.9, lines 1-2, lines 6-7; col.20, lines 38-40). It would have been obvious to one having ordinary skill in the

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art at the time the invention was made to combine the teachings of the cited references, by incorporating in Chaum's fragmented system a unidirectional and bidirectional replication to read only and updates to the replica data are performed in the central database in order to share data in one enterprise with minimal impact on the production processing occurring on either system.

10. Claims 29-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breitbart et al., US Patent no. 5,999,931 (hereinafter "Breitbart") and Tilley et al., Net-Centric computer further in view of and Strickler et al. (hereinafter "Strickler") US Patent no. 6,122,630. As to claims 29 and 36, neither Orfali nor Tilley discloses a unidirectional and bidirectional replication. On the other hand, Strickler discloses a unidirectional and bidirectional replication (col.1, lines 6-18, 27-40, 53-62, col.3, lines 19-21, lines 29-31; col.5, lines 32-35; col.9, lines 1-2, lines 6-7; col.20, lines 38-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, by incorporating in Orfali and Tilley combined' system a fragmented system a unidirectional and bidirectional replication to read only and updates to the replica data are performed in the central database in order to share data in one enterprise with minimal impact on the production processing occurring on either system.

As to claim 30, Strickler discloses the claimed "the act of requesting an update to the replica data within the local database from the central database" (col.1, lines 6-18, 27-40, 53-62, col.3, lines 19-21, lines 29-31; col.5, lines 32-35; col.9, lines 1-2, lines 6-7; col.20, lines 38-40).

As to claim 31, Strickler discloses the claimed "the act of creating a snapshot of the data within the central database that corresponds to the replica data when the replica data is transferred" (col.1, lines 6-18, 27-40, 53-62, col.3, lines 19-21, lines 29-31; col.5, lines 32-35; col.9, lines 1-2, lines 6-7; col.20, lines 38-40).

As to claim 32, Strickler discloses the claimed "the act of subsequently updating the local database with replica data that is replicated from the central database following an update of the data in the central database that corresponds to the snapshot" (col.1, lines 6-18, 27-40, 53-62, col.3, lines 19-21, lines 29-31; col.5, lines 32-35; col.9, lines 1-2, lines 6-7; col.20, lines 38-40).

As to claim 33, Strickler discloses the claimed "the act of subsequently updating the local database only with changes to the replica data based on the snapshot" (col.1, lines 6-18, 27-40, 53-62, col.3, lines 19-21, lines 29-31; col.5, lines 32-35; col.9, lines 1-2, lines 6-7; col.20, lines 38-40).

As to claim 34, Strickler discloses the claimed "the act of publishing the replica data when a pre-determined threshold is reached" (col.1, lines 6-18, 27-40, 53-62, col.3, lines 19-21, lines 29-31; col.5, lines 32-35; col.9, lines 1-2, lines 6-7; col.20, lines 38-40).

As to claim 35, Strickler discloses the claimed "the acts of monitoring the publications of replica data with a local database server, and updating the corresponding local database with replica data when the replica data that was published is an update to the replica data in the local database"

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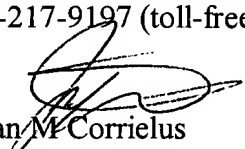
(col.1, lines 6-18, 27-40, 53-62, col.3, lines 19-21, lines 29-31; col.5, lines 32-35; col.9, lines 1-2, lines 6-7; col.20, lines 38-40).

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean M. Corrielus  
Primary Examiner  
Art Unit 2162

12/12/05